DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

1E6
Revision 3

HONEYWELL
(AlliedSignal,
Textron Lycoming)

LTC1B-1

FEBRUARY 1, 2000

TYPE CERTIFICATE DATA SHEET NO. 1E6

Engines of models described herein conforming with this data sheet (which is a part of Type Certificate No. 1E6) and other approved data on file with the Federal Aviation Administration meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Civil Air Regulations provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

TYPE CERTIFICATE (TC) HOLDER: Honeywell International Inc.
111 South 34th Street
Phoenix, AZ 85034

Model	Honeywell	LTC1B-1
Type	Shaft-turbine for Helicopters	Five stage axial compressor Single stage centrifugal compressor Reverse-flow annular combustion chamber Single stage compressor turbine Single stage power turbine 3.22:1 Reduction gear ratio

Ratings		
Max. continuous at sea level; shaft hp., jet thrust, compressor r.p.m., power turbine r.p.m.	770-96-24	140-20 137
Takeoff at sea level; shaft hp., jet thrust, compressor r.p.m., power turbine r.p.m.	860-102-24	440-20 156
Fuel control	Chandler-Evans Model TA-1	
Fuel	JP-1 (MIL-F-5616C) or JP-4 (MIL-F-5624C)	
Lubricating oil	MIL-L-7808C	
Principal dimensions:		
Length, overall, in.	47.80	
Diameter, nominal, in.	23.00	
C. G. location		
Fwd. of rear mounting pad centerline	4.238	

Below engine centerline	0.066
Drive shaft type	Special

Weight (dry) lb.	480 (includes basic engine with all essential accessories but excluding starter-generator, oil tank, generator cooling system, and exhaust system)
Ignition system	Bendix-Scintilla ignition unit, low voltage capacitor discharge type, P/N 10/80375-10 with two Bendix-Scintilla P/N 10-102792-1 spark ignitors.
Certification basis	Type Certificate No. 1E6 issued June 16, 1960 Date of type certificate application August 29, 1957.
Production basis	None. The manufacturer does not hold a production certificate for the production of engines under this certificate and, therefore, each engine so produced is subject to a detailed inspection for workmanship and conformity with the approved data by a Federal Aviation Agency representative. In addition, the engine must have a satisfactory run-in including at least five hours at rated power and speed. Upon satisfactory completion of the above, the representative will tag the engine with Tag Form 186.

NOTE 1. Maximum permissible engine operating r.p.m., for the engine rotors are as follows:

Compressor Turbine, r.p.m.	24,440
Power Turbine, r.p.m.	20,370

NOTE 2. Maximum permissible temperatures are as follows:

Turbine exhaust gas temperatures at the tail pipe:

Takeoff (5 minutes)	1045°F (563°C)
Maximum continuous	1000°F (538°C)
Maximum for acceleration	1400°F (760°C) for 5 seconds 1200°F (649°C) for remainder of the transient time
Starting (5 seconds)	1400°F (760°C)
Oil inlet temperature	190°F (88°C)

NOTE 3. Fuel and oil pressure limits:

Fuel, at engine inlet	14.7 p.s.i. a min. TO 50.0 p.s.i.g. max.
Oil, at engine inlet	0 to 15 p.s.i.g.
Oil pressure	
at idle	10 p.s.i.g. min.
operating range	70-90 p.s.i.g.

NOTE 4. The engine ratings are the guaranteed minimums and are based on static sea level conditions as follows:

Compressor inlet air 59°F and 29.92 in. Hg.
Inlet nozzle TE 516
Exhaust diffuser extension EXP-1287 with an exit area of 203 sq. in.
Exhaust inner cone assy. EXP-1799
No aircraft accessory loads
No compressor air bleed
No anti-icing airflow

NOTE 5. The following accessory drive provisions are incorporated:

Drive	Rotation (C-Clockwise	Gear	Max. Torque (in. - lb.)		Maximum Overhang
Gas Producer	CC-Counter-clockwise	Ratio	Cont.	Static	Moment (in.-lb.)
Tachometer	C	.167	7	50	- -
Starter-Generator	C	.283	150	1290	500
Spare	C	.147	68	330	25
Power Turbine					
Tachometer	CC	.695	7	50	- -

NOTE 6. This engine meets the Federal Aviation Administration requirements for adequate turbine disc integrity and rotor blade containment and does not require external armoring. This engine has demonstrated satisfactory operation in icing conditions as defined in 4B.1(b) 7 and 8.

NOTE 7. The engine is not eligible for installation in certificated aircraft until approved installation, operation, maintenance, and overhaul manuals are available.

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